Claim Amendments

What I claim as my invention is:

1-58 (Canceled).

59. (New). A sensor for measuring an analyte in a sample, comprising:

a solid micro optical fiber having a first end and a second end, wherein said first end and said second end have substantially the same cross-sectional area;

a reagent pad containing all the necessary chemicals and enzymes for a specified analysis, wherein said reagent pad is mounted to said first end of said solid micro optical fiber and receives a sample; and

a detection device comprising a light source for emitting light through said solid micro optical fiber onto said reagent pad, a photo detector for detecting reflected light from said reagent pad through said optical fiber in response to said emitted light, a processor to convert said reflected light to said analyte concentration, a display to display said analyte concentration, and a housing which engages the second end of said optical fiber with said light source,

wherein said analyte can be measured from a sample of about .1 microliters to about about 2 microliters and wherein said

60. (New) The sensor of claim 59, wherein said reagent pad is a membrane impregnated with dry chemicals and enzymes.

61. (New) The sensor of claim 59, wherein said reagent pad is a cast membrane.

62. (New) The sensor of claim 59, wherein said solid micro optical fiber is made of glass/glass, plastic/plastic, or glass/plastic.

63. (New) A sensor for measuring an analyte in a sample, comprising:
an elongated piece of micro plastic tubing with a first end and a second end, wherein said ends have substantially the same cross-sectional area;

a reagent pad containing all the necessary chemicals and enzymes for a specified analysis, wherein said reagent pad is mounted to said first end of said micro plastic tubing and receives a sample;

a detection device comprising a light source for emitting light through a fiber optic probe, a fiber optic probe with a first and second ends, wherein said ends have substantially the same cross-sectional area, a photo detector for detecting reflected light from said reagent pad through said optical fiber in response to said emitted light, a processor to covert said reflected light into said analyte concentration, and a display to display said analyte concentration,
wherein said analyte can be measured from a sample volume of between about .1 microliters to about 2 microliters.

64. (New) The sensor of claim 63, wherein said reagent pad is a membrane impregnated with dry chemicals and enzymes.

65. (New) The sensor of claim 63, wherein said reagent pad is a cast membrane.

66. (New) The sensor of claim 63, wherein said fiber optic probe is made of glass/glass, plastic/plastic, or glass/plastic.